

What is claimed is:

1. A method of establishing optimum test writing parameters for test writing of a writable optical storage media, which optimum test writing parameters are specific to both an optical storage media recording/reproducing apparatus and to a writable optical storage medium manufactured by a respective one of a plurality of media manufacturers and which optimum test writing parameters are established independently of and without being constrained by default test-writing reference power parameters pre-recorded in the writable optical storage media during its manufacture, the method comprising:

detecting information pre-recorded in a writable optical storage medium during its manufacture which uniquely specifies the writable optical storage medium's respective manufacturer;

performing a test writing parameter optimization on the writable optical storage medium to determine optimized test writing parameters for the writable optical storage medium, by writing test digital data to the writable optical storage medium while changing a light energy content, the light energy content being the writing power level and write strategy employed by the recording/reproducing apparatus when writing the test digital data to the writable optical storage medium;

reproducing the written test digital data from the writable optical storage medium and, in accordance with said reproduction, determining an optimum test writing light energy content representing optimum test writing parameters having a reproducing characteristic specific to both the writable optical storage medium and the recording/reproducing apparatus, the determined writable optical storage medium and recording/reproducing apparatus specific optimum test writing



parameters being thereby established with specificity to the recording/reproducing apparatus employed and separately of default test-writing parameters pre-recorded in the writable optical storage media during its manufacture; and

storing the determined optimum test writing parameters specific to both the writable optical storage medium and the recording/reproducing apparatus in a memory of the recording/reproducing apparatus in association with the information specifying the respective manufacturer of the writable optical storage medium.

2. The method of claim 1, further comprising:

determining optimum test writing parameters specific to the recording/reproducing apparatus for a plurality of writable optical storage media manufactured by different respective manufacturers of the plurality of manufacturers.

3. The method of claim 2, further comprising:

storing the established manufacture-specific optimum test writing parameters corresponding to each respective manufacturer's writable optical storage medium in a memory of a recording/reproducing apparatus in association with the information detected from each writable optical storage medium uniquely specifying the respective manufacturer thereof.

4. The method of claim 1, wherein the detected information is time information of a lead-in area or lead-out area recorded on the writable optical storage medium during manufacturing of the writable optical storage medium, and wherein the time information is indicated in units of Minutes, Seconds and Frames.



5. A method of establishing manufacturer-specific optimum test writing parameters for writing of a writable optical storage medium with specificity to a recording/reproducing apparatus, comprising:

detecting information contained in a writable optical storage medium which uniquely specifies the writable optical storage medium's respective manufacturer; and

setting pre-determined manufacturer-specific optimum test writing parameters corresponding to the detected information specifying the respective manufacturer of the writable optical storage medium, the manufacturer-specific optimum test writing parameters having been previously determined with specificity to the recording/reproducing apparatus through a test writing parameter optimization performed with such a recording/reproducing apparatus upon writable optical storage media manufactured by the respectively identified manufacturer and independently of and without being constrained to default test writing reference power parameters pre-recorded in the writable optical storage medium during its manufacture.

6. The method of claim 5, further comprising:

performing a writing parameter optimization on the writable optical storage medium, to determine optimized writing parameters for writing to the writable optical storage medium, by test writing to the writable optical storage medium using the set optimum test writing parameters.

7. The method of claim 5, further comprising:



determining optimum test writing parameters for writable optical storage media manufactured by a plurality of different manufacturers, for establishing manufacturer-specific optimum test writing parameters corresponding to each respective manufacturer's writable optical storage medium.

8. The method of claim 7, further comprising:

associating the established manufacturer-specific optimum test writing parameters corresponding to each respective manufacturer's writable optical storage medium with an information contained in a writable optical storage medium uniquely specifying the respective manufacturer thereof.

9. The method of claim 5, wherein the detected information is time information of a lead-in area or lead-out area recorded on the writable optical storage medium during manufacturing of the writable optical storage medium, and wherein the time information is indicated in units of Minutes, Seconds and Frames.

10. A method of establishing optimum writing parameters for writing of a writable optical storage medium specific to both the writable optical storage medium and a recording/reproducing apparatus, comprising:

detecting information recorded on a writable optical storage medium specifying the respective manufacturer of the writable optical storage medium;

setting previously established optimum test writing parameters corresponding to the detected information, the optimum test writing parameters having been previously determined with specificity to a recording/reproducing apparatus through a test writing parameter optimization procedure performed with



such a recording/reproducing apparatus upon writable optical storage media manufactured by the respectively identified manufacturer and independently of and without being constrained by default test writing reference power parameters pre-recorded in the writable optical storage medium during its manufacture, for test writing of the writable optical storage medium; and

performing a write parameter optimization on the writable optical storage medium using the previously established optimum test writing parameters to determine optimum writing parameters for writing of the writable optical storage medium.

11. The method of claim 10, further comprising:

determining optimum test writing parameters for writable optical storage media manufactured by a plurality of different respective manufacturers, for establishing the manufacturer-specific optimum test writing parameters corresponding to each manufacturer.

12. The method of claim 10, wherein the detected information is time information of a lead-in area or lead-out area recorded on the writable optical storage medium during manufacturing of the writable optical storage medium, and wherein the time information is indicated in units of Minutes, Seconds and Frames.

13. An apparatus for establishing optimum writing parameters for writing of a writable optical storage medium, comprising:

an optical pickup capable of detecting information contained in a writable optical storage medium uniquely specifying the respective manufacturer of the



writable optical storage medium;

a memory storing therein a plurality of pre-determined manufacture-specific optimum test writing parameters corresponding to writable optical storage media manufactured by a plurality of different respective manufacturers and also storing in association therewith information uniquely specifying the manufacturer of each writable optical storage medium corresponding to such optimum test writing parameters, the manufacturer-specific optimum test writing parameters having been previously determined with specificity to such an apparatus through a test writing parameter optimization performed with such an apparatus upon writable optical storage media manufactured by the respectively identified manufacturer and independently of and without being constrained by default test writing reference power parameters pre-recorded in the writable optical storage medium during its manufacture; and

a controller, operatively coupled with each of the optical pickup and the memory controlling the optical pickup to detect from the writable optical storage media the information contained therein uniquely specifying the manufacturer of the writable optical storage medium, and controlling the optical pickup for performing a writing parameter optimization on the writable optical storage media to determine optimum writing parameters for writing of the optical storage medium by test writing to the writable optical storage medium using the stored previously established manufacturer-specific optimum test writing parameters corresponding to the detected information.

14. The apparatus of claim 13, wherein the detected information is time information of a lead-in area or lead-out area recorded on the writable optical



storage medium during manufacturing of the writable optical storage medium, and wherein the time information is indicated in units of Minutes, Seconds and Frames.

15. An apparatus for establishing manufacturer-specific optimum writing parameters for writing of a writable optical storage medium, comprising:

storage means for storing pre-determined manufacturer-specific optimum test writing parameters respectively corresponding to writable optical storage medium manufactured by a plurality of different manufacturers, the pre-determined optimum test writing parameters for each respective writable optical storage medium being stored together with associated identification information uniquely identifying the corresponding manufacturer thereof, the manufacturer-specific optimum test writing parameters having been previously determined with specificity to such apparatus through a test writing parameter optimization procedure performed with such an apparatus upon writable optical storage media manufactured by the respectively identified manufacturer and independently of and not constrained by default test writing reference power parameters pre-recorded in the writable optical storage medium during its manufacture;

detection means for detecting the pre-recorded identification information contained in the writable optical storage medium which uniquely specifies the respective manufacturer thereof; and

controller means for performing a write parameter optimization on the writable optical storage medium by test writing to the writable optical storage medium using the stored pre-determined manufacturer-specific optimum test writing parameters corresponding to the detected information specifying the respective manufacturer of the writable optical storage medium.



16. The apparatus of claim 15, wherein the identification information contained in the writable optical storage medium is time information of a lead-in area or lead-out area recorded on the writable optical storage medium during manufacturing of the writable optical storage medium, and wherein the time information is indicated in units of Minutes, Seconds and Frames.